#### REMARKS

Reconsideration and withdrawal of the rejections of this application and consideration and entry of this paper are respectfully requested in view of the herein remarks and accompanying information, which place the application in condition for allowance or in better condition for appeal.

#### I.) Status of the Claims and Formal Matters

Claims 1-17 were pending in this application and stand rejected under 35 U.S.C. § 101 and 35 U.S.C. § 102(b). Claims 1-3, 5, 9, 15 and 16 have been amended. Claims 10 and 17 have been cancelled. New claims 18-27 have been added. No new matter has been added.

To more clearly define the invention, the claims have been amended to include a "compressible gasket" as a structural feature of the claimed combination. As recited in the amended claims, the compressible gasket is attached to the periphery of the facemask and is clearly distinct from the periphery of the mask. By definition, a gasket is an object that fills the space between two other objects when under compression. In the present case, the gasket is filling the space between the periphery of the mask and the user's face.

Support for the claim amendments can be found throughout the specification as originally filed. For instance, support for a "compressible gasket" can be found on page 2, l. 11-16 and page 15, l. 20 - page 17 l. 2. Further support is found in Figures 5-6 and the accompanying description of these figures on page 16 of the specification.

Support for new claims 18-19 is found is found on pages 6-7 and pages 11-12 of the specification. Support for claim 20 is found on page 6, l. 11-14 of the specification. Support for new claims 21-24 is found on page 7, l. 16 - page 9, l. 9 of the specification. Support for claims 25-27 is found on page 13, l. 20 - page 14, l. 7.

In view of the following remarks, Applicant respectfully requests reconsideration and withdrawal of all grounds of rejection, and the passage of the above-identified claims to allowance.

## II.) The Rejections Under 35 U.S.C. § 101 Are Overcome

Claims 1-17 have been rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. The Examiner alleges that the claims appear to positively recite a portion of the human body. In response, Applicants have amended the claims to comply with the Examiner's suggestion.

Accordingly, reconsideration and withdrawal of the rejection under section 101 is respectfully requested.

## III.) The Rejections Under 35 U.S.C. § 102 Are Overcome

a) Claims 1-17 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Rezuke et al. (U.S. Pat. No. 5,582,865). The Examiner alleges that Rezuke discloses a facemask having a periphery designed to abut a persons face and a tri-dimensional breathing material having an electrostatic charge there across. The Examiner further contends that Rezuke teaches a mask made of a composite material which contains a filtering layer and two other layers. Thus, the Examiner's position is that "inherently the composite material is present in the periphery of the mask as recited within the claim limitations." Office Action at Page 5.

Rezuke describes the production of a composite material which comprises a filtering material. With regard to the facemask, Rezuke states that "the composite structure 16, in any of the embodiments illustrated, can be thermally molded into various intended shapes, such as a disposable self-contained face mask filter, as shown in FIG. 3." Column 3, l. 6-9. In other words, the composite material containing the filtering layer is used to make the entire facemask, as manifested in Figure 3 of Rezuke. Rezuke is silent about a combination of a facemask and a compressible gasket, as cited in independent claims 1 and 9 as amended.

As recited in the preamble in the amended claims, independent claims 1 and 9 are clearly directed to a combination. The components of the combination include both a facemask and a compressible gasket. Hence, the inventive combination contains an additional structural element that is not disclosed or suggested in Rezuke. The amended claims clearly indicate that the gasket is separate from the facemask. To form the

claimed combination, the gasket is attached to the periphery of the facemask. As a result, the filtering material, when in use, is situated between the facemask and the user's face rather than being part of the facemask, as in Rezuke. Thus, it is not possible to interpret the claimed combination without having this additional structural element. Because Rezuke is completely lacking a compressible gasket, the inherency argument, as argued in the most recent Office Action, does not apply to the claims as amended.

The presence of the compressible gasket in the presently claimed facemask combination results in considerable advantages over masks available as of the filing date of the present application, including the facemask disclosed in Rezuke. As described on Page 2, l. 1-16 of the specification as originally filed, prior facemasks were designed to create an airtight seal between the mask and the user's face. However, such a seal would make it more difficult to breath, thus creating a large pressure differential between the periphery of the mask and the user's face. As a result, gaps between the seal and skin are generated with allow the passage of unfiltered air through. Thereby, the mask is incapable of achieving its desired purpose of filtering contaminated air.

The facemask disclosed in Rezuke would have the same problems as alluded to above. While the filtering material may be effective in protecting contaminated air from entering the mouth and nose, it would provide limited or no protection from contaminated air entering the gaps formed at the periphery of the mask. Although the Office Action argues that the filtering material is present in the mask's periphery, the Rezuke mask provides no means of filtering or obstructing the flow of contaminated air through the gaps between the periphery of the mask and the user's face. Hence, the Rezuke mask fails to solve or alleviate the significant problems that the inventive masks overcomes.

The means by which the inventive facemask/gasket combination solves the problem associated with the prior art facemasks is clearly described on page 16, l. 4-23 of the specification as originally filed. Note that Applicants state that "the breathable material of a tri-dimensional structure is placed around the mask or air filter in order to create a so-called airtight junction but instead creates a breathable material that actually covers all the contours of the different geometrical surface to provide a permeable closure, having filtering properties." Evidently, the important functional purpose of the gasket can be seen. Unlike the Rezuke mask, which does not contain a gasket affixed to

the periphery of the mask, air that penetrates the area between the facemask and the face is effectively filtered by the gasket. Thus, unlike the Rezuke mask, the inventive mask achieves its purpose of completely filtering the contaminated air while at the same time making it easier to breathe.

Accordingly, reconsideration and withdrawal of the rejection under section 102 over Rezuke is respectfully requested.

b) Claims 1-16 stand rejected 35 U.S.C. § 102(b) as being anticipated by Messier (U.S. Pat. No. 5,639,452). The Examiner alleges that Messier discloses a combination wherein an absorbent article made of a textile is utilized in combination with an active agent having an electrostatic charge.

Based on the same foregoing reasons as detailed in a), Messier '452 patent is not an anticipatory reference. Messier does not disclose the facemask/gasket combination as presently claimed. The facemask disclosed in Messier would have the same inherent problems as the facemask disclosed in Rezuke. Namely, there is no way to prevent air from penetrating the gaps generated from the pressure differential between the periphery of the mask and the user's face.

Accordingly, the rejection under 35 U.S.C. § 102(b) over Messier is overcome and withdrawal thereof is respectfully requested.

c) Claims 1-16 stand rejected 35 U.S.C. § 102(b) as being anticipated by Messier (U.S. Pat. No. 6,045,820). The Examiner alleges that Messier '820 patent discloses a combination wherein an absorbent article made of a textile is utilized in combination with an active agent having an electrostatic charge.

Based on the same foregoing reasons as detailed in a), Messier '820 patent is not an anticipatory reference. Messier does not disclose the facemask/gasket combination as presently claimed. The facemask disclosed in Messier would have the same inherent problems as the facemask disclosed in Rezuke. Namely, there is no way to prevent air from penetrating the gaps generated from the pressure differential between the periphery of the mask and the user's face.

Accordingly, the rejection under 35 U.S.C. § 102(b) over Messier is overcome and withdrawal thereof is respectfully requested.

d) Claims 1-16 stand rejected 35 U.S.C. § 102(b) as being anticipated by Messier (U.S. Pat. No. 5,980,827). The Examiner alleges that Messier '827 patent discloses a combination wherein an absorbent article made of a textile is utilized in combination with an active agent having an electrostatic charge.

Based on the same foregoing reasons as detailed in a), Messier '827 patent is not an anticipatory reference. Messier does not disclose the facemask/gasket combination as presently claimed. The facemask disclosed in Messier would have the same inherent problems as the facemask disclosed in Rezuke. Namely, there is no way to prevent air from penetrating the gaps generated from the pressure differential between the periphery of the mask and the user's face.

Accordingly, the rejection under 35 U.S.C. § 102(b) over Messier is overcome and withdrawal thereof is respectfully requested.

#### **CONCLUSION**

In view of the foregoing, Applicant respectfully requests reconsideration, withdrawal of all grounds of rejection, and allowance of all of the claims now present in the application in due course.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place the case in condition for final allowance, then it is respectfully requested that such amendment or correction be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, the Examiner is invited to telephone the undersigned.

The Commissioner is authorized to charge any required fees, including any extension and/or excess claim fees, any additional fees, or credit any overpayment to Goodwin Procter LLP Deposit Account No. 06-0923.

Respectfully submitted for Applicant,

Date: October 18, 2007

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DEC 0 3 2007

# **CERTIFICATE OF TRANSMISSION**

Thereby certify that this and the enclosed paper(s) and/or fee(s) are being deposited with the United States Postal Service as "First Class Mail" in an envelope addressed to: Mailstop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 11, 2007

Kammy Támashar

Date

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.

10/528,006

**Applicants** 

Pierre Messier et al.

Filed

January 5, 2006

Title

Facemask with Filtering Closure

Art Unit

3771

Examiner

Dixon, Annette Fredricka

Attorney Docket No.

102785-337-NP2

Expedited Procedure Response After Final Action Under 37 C.F.R. § 1.116

# AMENDMENT AND RESPONSE UNDER 37 C.F.R. § 1.116

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

#### Dear Sir/Madam:

This is responsive to the Office Action dated September 4, 2007. A shortened statutory period for reply to this Office Action is set to expire on December 4, 2007. This response is filed within the shortened statutory period. No extension of time is believed to be required. Applicant respectfully requests reconsideration of the above-identified patent application in view of the following remarks.

Amendments to the Claims begins on page 2 of this paper.

Remarks begin on page 6 of this paper.

### Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

- 1. (Currently amended) A combination comprising:
  a permeable facemask having a periphery formed adapted to abut a user's face; and
  a tri-dimensional a compressible gasket formed of a permeable filtering material affixed to on
  said periphery of said facemask adapted to sit between said periphery of said facemask and a face
  of a user thereby filling any space that may exist there between.
- 2. (Currently amended) The combination as in claim 1 wherein said tri-dimensional permeable filtering material compressible gasket includes an active agent incorporated therein.
- 3. (Currently amended) The combination as in claim 1 wherein said-tri-dimensional permeable filtering material compressible gasket comprises a porous dielectric carrier.
- 4. (Previously presented) The combination as in claim 3 wherein said porous dielectric carrier is a non-woven material.
- 5. (Currently amended) The combination as in claim 3 wherein said porous dielectric carrier is a fiber based material having a fibrous <u>three dimensional</u> matrix structure.
- 6. (Previously presented) The combination as in claim 3 wherein said porous dielectric carrier is a sponge like material have an open cell matrix structure.
- 7. (Previously Presented) The combination as in claim 2 wherein said active agent is selected from the group consisting of metals and chemical compounds.
- 8. (Previously presented) The combination as in claim 2 wherein said active agent is an iodinated resin.

9. (Currently amended) A combination comprising:
a permeable facemask having a periphery formed adapted to abut a user's face; and
a tri-dimensional permeable filtering material compressible gasket formed of a permeable
filtering material having an active agent incorporated therein affixed to on said periphery of said
facemask adapted to sit between said periphery of said facemask and a face of a user thereby
filling any space that may exist there between; wherein said compressible gasket includes an
electrostatic charge there across.

#### 10. (Cancelled)

- 11. (Currently amended) The combination as in claim 9 wherein said permeable filtering material compressible gasket comprises a porous dielectric carrier.
- 12. (Previously presented) The combination as in claim 11 wherein said porous dielectric carrier is a non-woven material.
- 13. (Previously presented) The combination as in claim 11 wherein said porous dielectric carrier is a fiber based material having a fibrous matrix structure.
- 14. (Previously presented) The combination as in claim 11 wherein said porous dielectric carrier is a sponge like material have an open cell matrix structure.
- 15. (Currently Amended) The combination as in claim 10 9 wherein said active agent is selected from the group consisting of metals and chemical compounds.
- 16. (Currently amended) The combination as in claim 10 9 wherein said active agent is an iodinated resin.
- 17. (Cancelled)

- 18. (New) The combination as in claim 5 wherein said fiber matrix structure is configured to entrap the active agent in said three dimensional matrix structure.
- 19. (New) The combination as in claim 5 wherein the active agent is intermeshed with the fiber based material.
- 20. (New) The combination as in claim 4 wherein said nonwoven material comprises a polymer fiber selected from the group consisting of nylon, polyethylene and polypropylene.
- 21. (New) The combination as in claim 2 wherein said active agent is a biostatic and/or biocidal material.
- 22. The combination as in claim 2 wherein the active agent is selected from the group consisting of silver, copper, halogenated resin, and activated carbon.
- 23. The combination as in claim 2 wherein the active agent is a metal, said metal selected from the group consisting of aluminum, barium, boron, calcium, chromium, copper, iron, magnesium, manganese, molybdenum, nickel, lead, potassium, silicon, sodium, strontium and zinc.
- 24. The combination as in claim 2, wherein the active agent is a chemical compound selected from the group consisting of N-methyl piperazine, potassium hydroxide, zinc chloride, calcium chloride and a mixture of sodium carbonate and sodium bicarbonate.
- 25. The combination of claim 18 wherein the fiber based material includes an electrostatic charge there across, said electrostatic charge capable of generating a potential across the surface of said fiber based material.
- 26. The combination of claim 25 wherein the electrostatic charge is single or multilayered.

27. The combination of claim 26 wherein the electrostatic charge is about 25 Kv.

#### REMARKS

Reconsideration and withdrawal of the rejections of this application and consideration and entry of this paper are respectfully requested in view of the herein remarks and accompanying information, which place the application in condition for allowance or in better condition for appeal.

#### I.) Status of the Claims and Formal Matters

Claims 1-17 were pending in this application and stand rejected under 35 U.S.C. § 101 and 35 U.S.C. § 102(b). Claims 1-3, 5, 9, 15 and 16 have been amended. Claims 10 and 17 have been cancelled. New claims 18-27 have been added. No new matter has been added.

Support for the claim amendments can be found throughout the specification as originally filed. For instance, support for a "compressible gasket" can be found on page 2, 111-16 and page 15, 120 - page 1712. Further support is found in Figures 5-6 and the accompanying description of these figures on page 16 of the specification.

Support for new claims 18-19 is found is found on pages 6-7 and pages 11-12 of the specification. Support for claim 20 is found on page 6, 111-14 of the specification. Support for new claims 21-24 is found on page 7, 116 - page 9, 19 of the specification. Support for claims 25-27 is found on page 13, 120 - page 14, 17.

In view of the following remarks, Applicant respectfully requests reconsideration and withdrawal of all grounds of rejection, and the passage of the above-identified claims to allowance.

# II.) The Rejections Under 35 U.S.C. § 101 Are Overcome

Claims 1-17 have been rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. The Examiner alleges that the claims appear to positively recite a portion of the human body. In response, Applicants have amended the claims to comply with the Examiner's suggestion.

Accordingly, reconsideration and withdrawal of the rejection under section 101 is respectfully requested

#### III.) The Rejections Under 35 U.S.C. § 102 Are Overcome

a) Claims 1-17 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Rezuke *et al.* (U.S. Pat. No. 5,582,865). The Examiner alleges that Rezuke discloses a facemask having a periphery designed to abut a persons face and a tri-dimensional breathing material having an electrostatic charge there across; said tri-dimensional breathing material attached to said periphery of said facemask to form a filtering closure. Applicant respectfully traverses these rejections.

In the response to the Office Action dated July 3, 2007, Applicants argued that Rezuke does not teach every element of the claimed invention. In particular, Rezuke did not teach or suggest a permeable filtering material affixed to the periphery of the facemask. In response, the Examiner now contends that Rezuke teaches a mask made of a composite material which contains a filtering layer and two other layers. Thus, the Examiner alleges that "inherently the composite material is present in the periphery of the mask as recited within the claim limitations." Office Action at Page 5.

Applicants argue that whether or not the composite material disclosed in Rezuke is present in the periphery of the mask is not relevant to the claimed combination. Rezuke does describe the production of a composite material which comprises a filtering material. With regard to the facemask, Rezuke states that "the composite structure 16, in any of the embodiments illustrated, can be thermally molded into various intended shapes, such as a disposable self-contained face mask filter, as shown in FIG. 3." Column 3, 16-9. In other words, the composite material containing the filtering layer is used to make the entire facemask, as manifested in Figure 3 of Rezuke.

The inventive combination contains an additional structural element that is not disclosed or suggested in Rezuke. The claims submitted in the Office Action response submitted on July 3, 2007 clearly indicated that this structural feature, which comprises a tri-dimensional filtering material, is affixed to the periphery of the facemask. As a result, the filtering material, when in use, is situated between the facemask and the user's face. Thus, it is impossible to construct the claimed combination without having this additional structural element. Because Rezuke is completely lacking this structural element, there is no basis for making an inherency argument, as argued in the most recent Office Action.

To more clearly define the invention, in the amended claims, the structural element discussed in the preceding paragraph is now described as a "compressible gasket." As recited in the claims, the compressible gasket is attached to the periphery of the facemask and is therefore distinct from the periphery of the mask. By definition, a gasket is an object that fills the space between two other objects when under compression. In the present case, the gasket is filling the space between the periphery of the mask and the user's face.

The presence of the compressible gasket in the presently claimed facemask combination results in considerable advantages over masks available as of the filing date of the present application, including the facemask disclosed in Rezuke. As described on Page 2, 11-16 of the specification as originally filed, prior facemasks were designed to create an airtight seal between the mask and the user's face. However, such a seal would make it more difficult to breath, thus creating a large pressure differential between the periphery of the mask and the user's face. As a result, gaps between the seal and skin are generated with allow the passage of unfiltered air through. Thereby, the mask is incapable of achieving its desired purpose of filtering contaminated air.

The facemask disclose in Rezuke would have the same problems as alluded to above. Although the filtering material may be effective in protecting contaminated air from entering the mouth and nose, it would provide limited or no protection from contaminated air entering the gaps formed at the periphery of the mask. Although the Office Action argues that the filtering material is present in the mask's periphery, the Rezuke mask provides no means of filtering or obstructing the flow of contaminated air through the gaps between the periphery of the mask and the user's face. Hence, the Rezuke mask fails to solve or alleviate the significant problems that the inventive masks overcomes.

The means by which the inventive facemask/gasket combination solves the problem associated with the prior art facemasks is clearly described on page 16, 14-23 of the specification as originally filed. Note that Applicants state that "the breathable material of a tri-dimensional structure is placed around the mask or air filter in order to create a so-called airtight junction but instead creates a breathable material that actually covers all the contours of the different geometrical surface to provide a permeable

closure, having filtering properties." Evidently, the important functional purpose of the gasket can be seen. Unlike the Rezuke mask, which does not contain a gasket affixed to the periphery of the mask, air that penetrates the area between the facemask and the face is effectively filtered by the gasket. Thus, unlike the Rezuke mask, the inventive mask achieves its purpose of completely filtering the contaminated air while at the same time making it easier to breathe.

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b) Claims 1-16 stand rejected 35 U.S.C. § 102(b) as being anticipated by Messier (U.S. Pat. No. 5,639,452). The Examiner alleges that Messier discloses a combination wherein an absorbent article made of a textile is utilized in combination with an active agent having an electrostatic charge.

Based on the same foregoing reasons as detailed in a), Messier '452 patent is not an anticipatory reference. Messier does not disclose the facemask/gasket combination as presently claimed. The facemask disclosed in Messier would have the same inherent problems as the facemask disclosed in Rezuke. Namely, there is no way to prevent air prom penetrating the gaps generated from the pressure differential between the periphery of the mask and the user's face.

Accordingly, the rejection under 35 U.S.C. § 102(b) over Messier is overcome and withdrawal thereof is respectfully requested.

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Based on the same foregoing reasons as detailed in a), Messier '820 patent is not an anticipatory reference. Messier does not disclose the facemask/gasket combination as presently claimed. The facemask disclosed in Messier would have the same inherent problems as the facemask disclosed in Rezuke. Namely, there is no way to prevent air

prom penetrating the gaps generated from the pressure differential between the periphery of the mask and the user's face.

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#### **CONCLUSION**

In view of the foregoing, Applicant respectfully requests reconsideration, withdrawal of all grounds of rejection, and allowance of all of the claims now present in the application in due course.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place the case in condition for final allowance, then it is respectfully requested that such amendment or correction be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, the Examiner is invited to telephone the undersigned.

The Commissioner is authorized to charge any required fees, including any extension and/or excess claim fees, any additional fees, or credit any overpayment to Goodwin Procter LLP Deposit Account No. 06-0923.

Respectfully submitted for Applicant,

Date: October 11, 2007

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